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State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



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Document Number:

400215746

Oil and Gas Location Assessment

☐ New Location☒ Amend Existing Location Location#: 324286

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at <http://colorado.gov/cogcc/> for all accompanying information pertinent to this Oil and Gas Location Assessment.

Location ID:

324286

Expiration Date:

12/29/2014☒ This location assessment is included as part of a permit application.

1. CONSULTATION

☐ This location is included in a Comprehensive Drilling Plan. CDP # _____☒ This location is in a sensitive wildlife habitat area.☐ This location is in a wildlife restricted surface occupancy area.☐ This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 100185Name: ENCANA OIL & GAS (USA) INCAddress: 370 17TH ST STE 1700City: DENVER State: CO Zip: 80202-5632

3. Contact Information

Name: Miracle PfisterPhone: (720) 876-3761Fax: (720) 876-4861email: miracle.pfister@encana.com

4. Location Identification:

Name: MCUNumber: 22-14C (N22W)County: GARFIELDQuarterQuarter: SESW Section: 22 Township: 7S Range: 93W Meridian: 6 Ground Elevation: 7026

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 567 feet FSL, from North or South section line, and 2106 feet FWL, from East or West section line.Latitude: 39.425656 Longitude: -107.761942 PDOP Reading: 0.0 Date of Measurement: 05/18/2011Instrument Operator's Name: TED TAGGART

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: <input type="text" value="0"/>	Drilling Pits: <input type="text" value="0"/>	Wells: <input type="text" value="17"/>	Production Pits: <input type="text" value="0"/>	Dehydrator Units: <input type="text" value="0"/>
Condensate Tanks: <input type="text" value="6"/>	Water Tanks: <input type="text" value="0"/>	Separators: <input type="text" value="12"/>	Electric Motors: <input type="text" value="0"/>	Multi-Well Pits: <input type="text" value="0"/>
Gas or Diesel Motors: <input type="text" value="0"/>	Cavity Pumps: <input type="text" value="0"/>	LACT Unit: <input type="text" value="0"/>	Pump Jacks: <input type="text" value="0"/>	Pigging Station: <input type="text" value="0"/>
Electric Generators: <input type="text" value="0"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text" value="0"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text" value="1"/>
Gas Compressors: <input type="text" value="0"/>	VOC Combustor: <input type="text" value="0"/>	Oil Tanks: <input type="text" value="0"/>	Fuel Tanks: <input type="text" value="0"/>	

Other: _____

6. Construction:

Date planned to commence construction: 11/30/2011 Size of disturbed area during construction in acres: 5.58
Estimated date that interim reclamation will begin: 04/30/2014 Size of location after interim reclamation in acres: 1.60
Estimated post-construction ground elevation: 7026 Will a closed loop system be used for drilling fluids: Yes ☒
Will salt sections be encountered during drilling: Yes ☐ No ☒ Is H2S anticipated? Yes ☐ No ☒
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes ☐ No ☒
Mud disposal: Offsite ☐ Onsite ☒ Method: Land Farming ☐ Land Spreading ☒ Disposal Facility ☐
Other: _____

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: 09/06/2011
Surface Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian
Mineral Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian
The surface owner is: ☒ the mineral owner ☒ committed to an oil and gas lease
☒ is the executer of the oil and gas lease ☐ the applicant
The right to construct the location is granted by: ☒ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way
☐ applicant is owner
Surface damage assurance if no agreement is in place: ☐ \$2000 ☐ \$5000 ☐ Blanket Surety ID _____

8. Reclamation Financial Assurance:

☐ Well Surety ID: _____ ☐ Gas Facility Surety ID: _____ ☐ Waste Mgmt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 3400, public road: 2200, above ground utilit: 2100
, railroad: 38000, property line: 474

10. Current Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

11. Future Land Use (Check all that apply):

Crop Land: ☐ Irrigated ☐ Dry land ☐ Improved Pasture ☐ Hay Meadow ☐ CRP
Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe): _____
Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to be used when segregating topsoil.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: #45 Morval Tridell Complex

NRCS Map Unit Name: _____
NRCS Map Unit Name: _____

13. Plant Community:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒
Plant species from: ☒ NRCS or, ☐ field observation Date of observation: _____
List individual species: _____

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
☒ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
☒ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
☐ Alpine (above timberline)
☐ Other (describe): _____

14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☒ No ☐ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes
Distance (in feet) to nearest surface water: 960, water well: 2940, depth to ground water: 182
Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes
Is the location within a Rule 317B Surface Water Supply Area buffer zone:
☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified: ☒ No ☐ Yes

15. Comments:

The Depth to Ground Water is from a waterwell ~3000 away and includes elevation changes. The right to construct surface will be approved by BLM permits. A reference area map is not attached. The Reference Area is adjacent to the pad to the NW. Reference Area Pictures will be taken during the growing season next year and submitted.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: _____ Date: 10/20/2011 Email: miracle.pfister@encana.com
Print Name: Miracle Title: Pfister

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: David S. Neslin Director of COGCC Date: 12/30/2011

CONDITIONS OF APPROVAL, IF ANY:

All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.

SITE SPECIFIC COAs:

The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface or buried pipelines.

Operator must ensure secondary containment for any volume of fluids contained at well site during drilling and completion operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or pit located on the well pad or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed on the well pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

Attachment Check List

Att Doc Num	Name
2034073	CORRESPONDENCE
400215746	FORM 2A SUBMITTED
400216810	ACCESS ROAD MAP
400216811	CONST. LAYOUT DRAWINGS
400216813	LOCATION DRAWING
400216814	LOCATION PICTURES
400216815	MULTI-WELL PLAN
400216816	HYDROLOGY MAP
400218748	NRCS MAP UNIT DESC

Total Attach: 9 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	BMP's submitted by operator and BLM lease stipulations satisfy DOW. LGD/public comments waived. Final Comprehensive Review Status--passed.	12/29/2011 11:03:00 AM
Permit	update on status--waiting for mineral lease info back from Encana to approve one of the submitted APD's for this pad.	12/21/2011 10:51:12 AM
Permit	will pass for final approval once remaining APD's for fed/fee wells are submitted. operator requesting federal sundries for RTO's.	12/6/2011 1:34:00 PM
DOW	The BMPs as submitted by the operator are applicable to the site. Additionally, CPW affirms that the lease stipulations and conditions of approval assigned to this permit by the BLM suffice to address wildlife habitat and mitigation concerns. Monday, December 5, 2011 at 10:00 a.m.	12/5/2011 9:58:10 AM
Permit	per telephone conversation w/ oper. added comment that six wells on this pad are fed surface/fed. minerals. Ten wells on this pad are fed surface/fed. Minerals—these APD's submitted once RTO's approved. added related FORM 2's. ready to approve in permitting.	11/2/2011 9:04:50 AM
OGLA	Initiated/Completed OGLA Form 2A review on 10-27-11 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, moisture content cuttings, and flowback to tanks COAs from operator on 10-27-11; received acknowledgement of COAs from operator on 11-09-11 (Verbal); changed distance to SW to 895'; passed by CDPW on 12-05-11 with operator agreed to BMPs acceptable; passed OGLA Form 2A review on 12-06-11 by Dave Kubeczko; fluid containment, spill/release BMPs, lined pits/closed loop, cuttings containment, moisture content cuttings, and flowback to tanks COAs.	10/27/2011 6:54:48 PM
Permit	Operator corrected attachment and right to construct info. The form has passed completeness.	10/27/2011 1:27:28 PM
Permit	Returned to draft. Missing right to construct information. Missing full NRCS map unit attachment.	10/21/2011 7:12:28 AM

Total: 8 comment(s)

BMP

<u>Type</u>	<u>Comment</u>
Wildlife	<p>Minimize the number, length and footprint of oil & gas development roads Use existing routes where possible Combine utility infrastructure planning (gas, electric & water) when possible with roadway planning to avoid separate utility corridors Coordinate Employee transport when possible</p> <p>Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors. Maximize use of state-of-the-art drilling technology (e.g., high efficiency rigs, coiled-tubing unit rigs, closed-loop or pitless drilling, etc.) to minimize disturbance.</p> <p>Reclaim mule deer and elk habitats with native shrubs, grasses, and forbs appropriate to the ecological site disturbed.</p>
Construction	<p>CONSTRUCTION/RECLAMATION (Not all are used all the time) Terminal Containment, Diversions, Run-On Protection, Tracking, Benching, Terracing, ECM (Erosion Control Mulch), ECB (Erosion Control Blanket), Check Dams, Seeding, Mulching, Water Bars, Stabilized Unpaved Surfaces (Gravel), Stormwater & Snow Storage Containment, Scheduling, Phased Construction, Temporary Flumes, Culverts with inlet & outlet protection, Rip Rap, TRM (Turf Reinforcement Mats), Maintenance, Scheduling, Phased Construction, Fueling BMP's, Waste Management BMP's, Materials Handling BMP's</p>
Pre-Construction	<p>PRECONSTRUCTION Wattles, Silt Fence, Vegetation Buffers, Slash, Topsoil Windrows (diversions & ROP's), Scheduling, Phased Construction</p>
Interim Reclamation	<p>POST CONSTRUCTION/RECLAMATION Maintenance Revegetation Monitoring BMP maintenance & monitoring Weed Management</p>

Total: 4 comment(s)